



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,563	10/18/2001	Shigeru Kitsutaka	110713	2263

7590 11/20/2003
Oliff & Berridge
P.O. Box 19928
Alexandria, VA 22320

EXAMINER

CUNNINGHAM, GREGORY F

ART UNIT	PAPER NUMBER
----------	--------------

2676

10

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

KS

Office Action Summary

Application No.

09/937,563

Applicant(s)

KITSUTAKA, SHIGERU

Examiner

Greg Cunningham

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8,20-26 and 37-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8,20-26 and 37-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications of application election received 8/14/2003.
2. The disposition of the claims is as follows: claims 1-8, 19-26 and 37-44 are pending in the application. Claims 1, 19 and 37 are independent claims. Claims 10-18, 27-36 and 45-54 are non-elected claims and have been cancelled.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 19, 20, 37 and 38 are rejected under 35 U.S.C. 102(b) as being disclosed by Ueda, (US Patent 4,935,879).

A. Claim 1, "A game system which generates an image, comprising: means which sets image information of an original image as an index number in a lookup table for index color texture-mapping; and means which transforms the image information of the original image by performing index color texture-mapping on a virtual object by using the lookup table in which the image information of the original image is set as the index number" is disclosed in col. 9, lns. 32-38.

B. Claim 2, "The game system as defined in claim 1, wherein the virtual object is a polygon having a size equal to a size of a display screen" is disclosed in Fig. 7 as shown.

Art Unit: 2676

C. Per independent claims 19 and 37, these are directed to a computer usable program and a method, respectively, for the system of independent claim 1, and therefore are rejected to independent claim 1.

D. Per dependent claims 20 and 38, these are directed to a computer usable program and a method, respectively, for the system of dependent claim 2, and therefore are rejected to dependent claim 2.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 21 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda as applied to claims 1, 27 and 45 above, and further in view of Regan, (US-PAT-NO 6,611,264).

A. Claim 3, "The game system as defined in claim 1, wherein the virtual object is a polygon having a size equal to a size of a block obtained by dividing a display screen into blocks" is disclosed by Ueda supra for claim 1. However Ueda does not disclose "wherein the virtual object is a polygon having a size equal to a size of a block obtained by dividing a display screen into blocks", but Regan does in col. 1, lns. 40-51.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply texture mapping disclosed by Ueda in combination with triangular

Art Unit: 2676

polygon blocks disclosed by Regan, and motivated to combine the teachings because they are frequently used as building blocks as revealed in col. 1, line 40.

B. Per dependent claims 21 and 39, these are directed to a computer usable program and a method, respectively, for the system of dependent claim 3, and therefore are rejected to dependent claim 3.

7. Claims 4, 5, 22, 23, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda as applied to claims 1, 27 and 45 above, and further in view of Duluk, Jr. et al., (US-PAT-NO 6,597,363B1), hereafter Duluk.

A. Claim 4, "The game system as defined in claim 1, wherein the lookup table is used to perform gamma correction, negative/positive inversion, posterization, solarization, binarization monotone filtering or sepia filtering on the image information of the original image" is disclosed by Ueda supra for claim 1. However Ueda does not disclose "wherein the lookup table is used to perform gamma correction, negative/positive inversion, posterization, solarization, binarization monotone filtering or sepia filtering on the image information of the original image", but Duluk does in col. 113, lns. 46-51.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply texture mapping disclosed by Ueda in combination with gamma correction disclosed by Duluk, and motivated to combine the teachings because the look-up RAM act as look-up table for gamma correction as revealed by Duluk.

B. Per dependent claims 22 and 40, these are directed to a computer usable program and a method, respectively, for the system of dependent claim 4, and therefore are rejected to dependent claim 4.

Art Unit: 2676

C. Claim 5, “The game system as defined in claim 1, wherein one of color components of color information in the image information of the original image is set as the index number in the lookup table for the transformation of the color information; and wherein the game system further comprises means which performs masking on other color components of the transformed color information to avoid being drawn in the drawing region” is disclosed by Ueda supra for claim 1. However Ueda does not appear to disclose “wherein one of color components of color information in the image information of the original image is set as the index number in the lookup table for the transformation of the color information; and wherein the game system further comprises means which performs masking on other color components of the transformed color information to avoid being drawn in the drawing region”, but Duluk does in col. 4, lns. 18-34.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply texture mapping disclosed by Ueda in combination with depth using Z-buffering and LUT disclosed by Duluk, and motivated to combine the teachings because the look-up RAM act as look-up table for Z-buffering as revealed by Duluk.

D. Per dependent claims 23 and 41, these are directed to a computer usable program and a method, respectively, for the system of dependent claim 5, and therefore are rejected to dependent claim 5.

E. Claim 8, “The game system as defined in claim 1, wherein a depth value in the image information of the original image is set as the index number in the lookup table” is disclosed supra by Ueda and Duluk for claim 5.

Art Unit: 2676

F. Per dependent claims 26 and 44, these are directed to a computer usable program and a method, respectively, for the system of dependent claim 8, and therefore are rejected to dependent claim 8.

8. Claims 6, 7, 24, 25, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda as applied to claims 1, 27 and 45 above, and further in view of Schilling et al., (US-PAT-NO 6,236,405B1), hereafter Schilling.

A. Claim 6, “The game system as defined in claim 1, further comprising means which blends: transformed color information obtained by setting the K-th color component of the color information in the image information of the original image as the index number in the lookup table; transformed color information obtained by setting the L-th color component of the color information as the index number in the lookup table; and transformed color information obtained by setting the M-th color component of the color information as the index number in the lookup table” is disclosed by Ueda supra for claim 1. However Ueda does not disclose “further comprising means which blends: transformed color information obtained by setting the K-th color component of the color information in the image information of the original image as the index number in the lookup table; transformed color information obtained by setting the L-th color component of the color information as the index number in the lookup table; and transformed color information obtained by setting the M-th color component of the color information as the index number in the lookup table”, but Schilling does in col. 10, ln. 11 – col. 11, ln. 18. Wherein RGB corresponds to K, L and Mth components.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply texture mapping disclosed by Ueda in combination with color

Art Unit: 2676

information transformation via color look-up-table disclosed by Schilling, and motivated to combine the teachings because the color look-up-table via indices for R, G, B and α as revealed by Schilling.

B. Claim 7, "The game system as defined in claim 1, wherein an alpha value corresponding to the image information of the original image is generated by the transformation of the image information of the original image" is disclosed supra for claim 6.

C. Per dependent claims 24, 25, 42 and 43, these are directed to a computer usable program and a method, respectively, for the system of dependent claims 6 and 7, respectively, and therefore are rejected to dependent claims 6 and 7.

Responses

9. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231. If applicant desires to fax a response, (703) 308-9051 may be used for formal communications or (703) 308-6606 for informal or draft communications.

Please label "PROPOSED" or "DRAFT" for informal facsimile communications. Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Inquiries

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Cunningham whose telephone number is (703) 308-6109.

Art Unit: 2676

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached on (703) 308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

G.F. Cunningham

gfc

November 17, 2003

Matthew C. Bella

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600